

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Alain Yang et al. Confirmation No: 4035

Serial No.: 10/807,058 Group Art Unit: 1771

Filed: 03/23/2004 Examiner: TORRES VELAZQUEZ, NORCA
LIZ

For: INSULATION PRODUCT FROM Date: March 15, 2007
ROTARY AND TEXTILE INORGANIC
FIBERS AND THERMOPLASTIC FIBERS

APPEAL BRIEF

Pursuant to 37 C.F.R. § 41.37, Applicant submits this brief in support of appeal from the decision of the Primary Examiner in the Advisory action dated November 14, 2006 (hereinafter "Advisory Action") finally rejecting claims 1-12, 15-38, 41, 42 and 48-53, as amended in the after-final amendment submitted on September 29, 2006, in the above-captioned application.

This appeal brief is being timely submitted under 37 C.F.R. § 41.37(a) as the Notice of Appeal was filed on January 15, 2007. The Commissioner is authorized to charge the fees for the brief in the amount of \$500.00, and charge any additional fees due and owing in connection with this filing to Duane Morris Deposit Account No. 04-1679.

Appellant requests that the final rejections of claims 1-12, 15-38, 41, 42 and 48-53 be REVERSED with instructions to the Primary Examiner to allow the pending claims.

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I. Real Party in Interest

The real party in interest is CertainTeed Corporation, present owner of the application and the invention described therein.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-12, 15-38, 41, 42 and 48-53 are pending in the present application. Claims 13, 14, 39, 40 and 43-47 were previously canceled. Claims 1-12, 15-38, 41, 42 and 48-53 stand rejected, and their rejection is hereby appealed.

IV. Status of Amendments

The after-final amendments to the claims submitted on September 29, 2006 were entered by the Primary Examiner for the purposes of appeal. (See Advisory Action dated November 14, 2006.) Thus, the claims 1-12, 15-38, 41, 42 and 48-53 on appeal are as amended by the after-final amendment.

V. Summary of Claimed Subject Matter

Claim 1:

Claim 1 is drawn to a thermal and acoustical insulation product comprising rotary glass fibers, thermoplastic fibers, textile glass fibers and at least one binder. (Specification at page 2, lines 8-10 (paragraph [0006]); page 4, lines 6-11 (paragraph [0017]).) The fibers and the at least one binder are blended together and the at least one binder bonds the fibers together to form the insulation product and the total glass fiber content is about 30-50 wt. % of said insulation product and said textile glass fibers make up less than about 20 wt. % of the total glass fiber content of said insulation product. (Specification at page 5, lines 2-5.) The addition of textile glass fibers in the claimed wt. % content of the textile glass fibers enhances the **tensile strength** in the final product. (Specification at paragraph [0007] page 2, lines 14-16.)

Claim 27:

Claim 27 is drawn to a thermal and acoustical insulation product 100 comprising a fibrous insulation mat 120 having a first side 121 and a second side 122. (Specification at page 3, lines 27-30; FIG. 1.) The mat comprises rotary glass fibers, thermoplastic fibers, textile glass fibers and at least one binder. (Specification at page 4, lines 9-11 (paragraph [0017]); page 4, lines 20-22 (paragraph [0018]).) The fibers and the at least one binder are blended together and the at least one binder bonds the fibers together to form the fibrous insulation mat. (Specification at page 4, lines 9-11.) The total glass fiber content is about 30-50 wt. % of the insulation product and the textile glass fibers make up less than about 20 wt. % of the total glass fiber content of the insulation product. (Specification at page 5, lines 2-5.) A non-woven facing layer 130 is bonded to at least one of the two sides of the fibrous insulation mat 120. (Specification at page 3, lines 27-30; FIG. 1; page 5, lines 23-25 (paragraph [0023]).) The addition of textile glass fibers in the claimed wt. % content of the textile glass fibers enhances the **tensile strength** in the final product. (Specification at paragraph [0007] page 2, lines 14-16.)

Claim 48:

Claim 48 is drawn to a thermal and acoustical insulation product comprising a blended mixture of rotary and textile glass fibers, thermoplastic fibers and resinous binder. (Specification at page 2, lines 8-10 (paragraph [0006]); page 4, lines 6-11 (paragraph [0017]).) The rotary and textile glass fibers are bonded together by the combined adhesion caused by heating the blended

mixture whereby the thermoplastic fibers and the resinous binder are disposed at least partially in molten state and thereafter cooling the heated blended mixture to ambient temperature to form the insulation product. (Specification at page 3, lines 6-11 (paragraph [0010]; page 5, lines 10-14.) The total glass fiber content is about 30-50 wt. % of the insulation product and the textile glass fibers make up less than about 20 wt. % of the total glass fiber content of the insulation product. (Specification at page 5, lines 2-5.) The addition of textile glass fibers in the claimed wt. % content of the textile glass fibers enhances the **tensile strength** in the final product. (Specification at paragraph [0007] page 2, lines 14-16.)

VI. Grounds of Rejection To Be Reviewed on Appeal

Although the Examiner does not cite the statutory basis for the rejection of the pending claims in the Advisory Action, because the examiner's words discuss optimization of ranges and cites the case *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) discussed in MPEP § 2144.05, II, Appellant assumed that the basis for the examiner's rejection is 35 U.S.C. §103(a). Therefore, Appellant states that the grounds of rejection to be reviewed on appeal is:

1. Whether the differences between claims 1-12, 15-38, 41, 42 and 48-53, as amended after final rejection, subject to rejection by the examiner under 35 U.S.C. § 103(a) as being obvious over U.S. patent No. 4,849,281 to Brandon et al. ("Brandon"), are such that the subject matter claimed as a whole would have been obvious to a person of ordinary skill in the art the time of the invention.

VII. Argument

A. Claims 1-12, 15-38, 41, 42 and 48-53 are patentable over the examiner's application of Brandon because that reference does not obviate the pending claims under 35 U.S.C. § 103(a).

Claims 1-12, 15-38, 41, 42 and 48-53, as amended after final rejection, have been rejected by the examiner, presumably as being unpatentable under 35 U.S.C. § 103(a), over the Brandon reference. (Advisory Action of November 14, 2006, Continuation of item 11 at page 2.) The examiner acknowledges that Brandon does not disclose the amount of textile glass fibers in weight % in the range claimed. However, the examiner states that the Brandon disclosure "does not preclude optimization of the ratio of these materials relative to the intended use of it." (Advisory Action, at page 2). The examiner attempts to support her position by citing *In re Boesch*, 205 USPQ 215 (CCPA 1980) as standing for the proposition that "optimum values of cause effective variables such as flexibility is within the skill of one practicing the art." (Advisory Action, at page 2, lines 6-10). The examiner's application of the law is incorrect and this rejection is legally insufficient to satisfy the examiner's initial burden of establishing *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, the following three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference must teach or suggest all the claim limitations. MPEP § 2142; *see also*, MPEP § 2143.03; *In re Vaack*, 947 F.2d 488, 492 (Fed. Cir. 1991); *In re Royka*, 490 F.2d 981 (CCPA 1974)). The examiner has not met any of the three requirements for establishing *prima facie* case of obviousness.

The pending independent claims 1, 27 and 48 are directed to a thermal and acoustical insulation product and all recite a limitation:

... the total glass fiber content is about 30-50 wt. % of said insulation product and said textile glass fibers make up less than about 20 wt. % of the total glass fiber content of said insulation product.

(emphasis added). According to this limitation, the total glass fiber content of the insulation product is about 30-50 wt. %. And because the textile glass fibers are less than about 20 wt. % of the total glass fiber content, the amount of the textile glass fibers in the insulation product as a whole is less than $0.2 \times (30-50 \text{ wt. } \%)$ or less than 6-10 wt. %. In other words, this limitation requires that the textile glass fiber content of the insulation product is effectively **less than 10 wt. %** of the insulation product.

In contrast, as acknowledged by the examiner, Brandon discloses a different range for the amount of textile glass fibers. Brandon's disclosure states that the "optimum ratio" for blending wool and textile glass fibers to produce the preferred embodiment requires wool glass fiber content of 70-90 wt. % and the textile glass fiber content of 10-30 wt. % of the product (Brandon at col. 3, lines 1-6 and lines 10-13.), thus, teaching away from the claimed range.

However, the examiner has not met the first requirement for establishing a *prima facie* case of obviousness of making a proper showing of motivation to modify the teachings of Brandon. The examiner must show reasons that one of ordinary skill in the art, with no knowledge of the claimed invention, would make the modification. *See In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000); *In re Rouffet*, 149 F.3d 1355, 1359 (Fed. Cir. 1998) (citing *Environmental Designs v. Union Oil*, 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983)).

For showing of such motivation to modify the teachings of Brandon, the examiner incorrectly relies on the well settled law and states that "determination of optimum values of cause effective variables, such as **flexibility**, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980)." (emphasis added) (See Advisory Action).

The examiner's reliance on *In re Boesch* is improper because the variable "flexibility" discussed in the Brandon reference and identified by the examiner is not the proper "result-effective variable" here. MPEP § 2144.05, II, B. states:

A particular parameter must first be recognized as a result-effective variable, i.e., **a variable which achieves a recognized result**, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to cont[actor] area of 0.12 gal./sq. ft. **The prior art did not recognize that treatment capacity is a function of the tank volume to cont[actor] ratio, and therefore the parameter optimized was not recognized in the art to be a result-effective variable.**) See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1908)

(emphasis in bold added). In *In re Antonie*, appellant claimed a wastewater treatment device that has a ratio of tank volume to contactor area of 0.12 gal./sq. ft.. The claimed value of 0.12 for the ratio of tank volume to contactor area was optimum in that it maximized “treatment capacity” so that the effectiveness of a given contactor is maximized. *In re Antonie*, at 619. Thus, the value of 0.12 for the tank volume to contactor area ratio was the variable that was optimized in the claimed invention to achieve the desired result of maximizing the effectiveness of a given contactor in the wastewater treatment device. The examiner rejected appellant’s claims as obvious under § 103, noting that the basic structure of the device was taught by a prior art reference although the reference was silent as to the ratio of tank volume to contactor area ratio. *Id.* Examiner reasoned that the disclosure of the prior art reference would make a device with the claimed optimum value obvious. *Id.* The Court rejected the PTO Board of Appeals affirmation of the examiner’s rejection because “[i]t is impossible to recognize, from the experiment taught by [the prior art reference], that ‘treatment capacity’ is a function of ‘tank volume’ or the tank volume-to-contactor area ratio.” *Id.*, at 620. The Court further elaborated that “[r]ecognition of this functionality is essential to the obviousness of conducting experiments to determine the value of the “tank volume” ratio which will maximize treatment capacity.” *Id.* Thus, the prior art reference must recognize the relationship between the variable being optimized in the claim and the effective result achieved by that optimization.

As noted by the examiner in the Advisory Action, Brandon teaches optimizing the ratio of wool fibers to the textile glass fibers to control **the flexibility** (also referred to as the **compressibility** in Brandon) of the final product. (Brandon at col. 2, lines 62-68; col. 4, lines 3-5.) Brandon discloses that the “optimum ratios” (*i.e.* where the textile glass fiber content is 10-30 wt. % of the product) of wool and textile glass fibers produces “a mat having both sufficient room temperature dimensional stability and sufficient compressibility to avoid buckling problems of the vinyl floor covering.” (Brandon at col. 3, lines 1-6 and lines 10-13.)

Unlike the teachings of Brandon, in the claimed invention, the addition of textile glass fibers in the claimed wt. % content of the textile glass fibers is driven by the need to achieve enhanced **tensile strength** in the final product. (Specification at paragraph [0007] page 2, lines 14-16.) Thus, as in *In re Antonie*, the Brandon reference does not recognize the variable, amount of textile glass fibers in wt. %, as the variable that achieves the result of improving the tensile

strength of the product, as disclosed in the present application. In other words, Brandon does not recognize that tensile strength of the product is a function of the textile glass fiber content, and therefore the parameter the examiner attempts to optimize to match the claimed range is not recognized in Brandon to be the proper result-effective variable with respect to the claimed invention, as required by *In re Antonie*.

Therefore, the teachings of Brandon with regard to any optimization or modification of the wt. % of the textile glass fibers to control the **flexibility** (or compressibility) of the final product does not provide the proper motivation to modify the disclosed amount of textile glass fibers from 10-30 wt. % to that of the claimed lower range (less than 10 wt. %) which is an aspect of the claimed invention that was defined to achieve a desired **tensile strength**. Accordingly, one of ordinary skill in the art looking at the Brandon disclosure would not be motivated to modify the teachings of the disclosure to make the claimed invention. Therefore, the rejection of record does not establish a *prima facie* case of obviousness for the pending independent claims 1, 27 and 48 under 35 U.S.C. § 103(a). The examiner's rejection of claims 1, 27 and 48 should be reversed.

Brandon does disclose that the glass mat disclosed therein "possesses such properties as **hot tensile strength** without compromising the desirable low rigidity of the glass mat." (emphasis in bold added) (Brandon at column 2, lines 29-32; see also at column 3, lines 6-9 (stating "[t]he glass mat of the present invention when used as an interlayer for a vinyl floor covering also has sufficient hot tensile strength to be produced commercially.")).) However, Brandon goes on to state that the hot tensile strength is achieved by the use of a particular type of binder. Brandon states that "**the use of a melamine cross-linked styrene-butadiene binder provides a glass mat having adequate hot tensile strength** while maintaining the compressibility of the vinyl-coated product." (emphasis in bold added) (Brandon at column 3, lines 34-37.) Nowhere in Brandon's disclosure is a teaching or suggestion that the tensile strength of the product is a variable that is controlled by the textile glass fiber content in the product. Thus, the discussion in Brandon regarding the hot tensile strength of the product achieved by the binder material does not render the textile glass fiber content to be a proper "result-effective variable" that would allow the examiner's application of *In re Boesch* here as being appropriate.

Returning to the requirements of the examiner's burden of establishing *prima facie* case of obviousness, the examiner has also failed to meet the second requirement. The examiner has failed to show a reasonable expectation of success with the modification of the prior art teachings suggested by the examiner. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success **must both be found in the prior art**, not in applicant's disclosure." MPEP § 2143 (emphasis in bold added) (citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)). Brandon's disclosure only states that a preferable embodiment for the optimum ratio of wool fibers to the textile glass fibers for its product contains textile glass fiber content of 10-30 wt. % and 70-90 wt. % of wool fibers. There is no disclosure in Brandon teaching or suggesting that varying the textile glass fiber content to less than 10 wt. % would be desired to obtain desired tensile strength of the product as required by the pending claims. And the examiner has not provided any other pieces of prior art evidencing such expectation of success. Therefore, the rejection of record does not establish a *prima facie* case of obviousness for the pending independent claims 1, 27 and 48 under 35 U.S.C. § 103(a). The examiner's rejection of claims 1, 27 and 48 should be reversed.

Lastly, the examiner has not made a proper showing of *prima facie* case of obviousness because, the prior art reference of record does not disclose all limitations of the pending claims 1, 27 and 48. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *See also*, MPEP § 2143.03). Namely, as discussed above, the examiner's rejection of record has not made a proper showing that one of ordinary skill in the art would have been motivated to modify the teachings of Brandon, the only reference cited in the Advisory Action, to the claimed range for the textile glass fiber content. Therefore, the rejection of record does not establish a *prima facie* case of obviousness for the pending independent claims 1, 27 and 48 under 35 U.S.C. § 103(a). The examiner's rejection of claims 1, 27 and 48 should be reversed.

Claims 2-12, 15-26, 28-38, 41, 42, 49-53 all include the above discussed limitation of claims 1, 27 and 48 through their respective dependence thereof. Therefore, the rejection of record also does not establish a *prima facie* case of obviousness for claims 2-12, 15-26, 28-38, 41, 42, 49-53 either. The rejection of claims 2-12, 15-26, 28-38, 41, 42, 49-53 should be reversed.

VIII. Conclusion

For the reasons stated above, the examiner's rejection of all pending claims in the Advisory Action under 35 U.S.C. § 103(a) is improper for failing to make a proper showing of *prima facie* case of obviousness. Consequently, the examiner's rejection of the pending claims should be reversed.

Appellant/Applicant submits that this application is in condition for allowance and respectfully requests reversal of all rejections of the claims and remand to the examiner with instructions to process the application for allowance.

Respectfully submitted,

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Claims Appendix

1
2 1. A thermal and acoustical insulation product comprising:
3 rotary glass fibers;
4 thermoplastic fibers;
5 textile glass fibers; and
6 at least one binder, wherein the fibers and the at least one binder are blended together, the
7 at least one binder bonding the fibers together to form the insulation product and the total glass
8 fiber content is about 30-50 wt. % of said insulation product and said textile glass fibers make up
9 less than about 20 wt. % of the total glass fiber content of said insulation product.

10
11 2. The thermal and acoustical insulation product of claim 1, wherein said rotary
12 fibers comprise scrap fibers.

13
14 3. The thermal and acoustical insulation product of claim 1, wherein said
15 thermoplastic fibers comprise scrap nylon fibers.

16
17 4. The thermal and acoustical insulation product of claim 1, wherein said textile
18 glass fibers comprise scrap fibers.

19
20 5. The thermal and acoustical insulation product of claim 1, wherein said
21 thermoplastic fibers are about 6 to 130 mm in length.

22
23 6. The thermal and acoustical insulation product of claim 1, wherein said
24 thermoplastic fibers are about 13 to 102 mm in length.

25
26 7. The thermal and acoustical insulation product of claim 1, wherein said
27 thermoplastic fibers have a diameter of about 20 to 50 micrometers.

28
29 8. The thermal and acoustical insulation product of claim 1, wherein said
30 thermoplastic fibers make up about 30 to 50 wt. % of said insulation product.

31
32 9. The thermal and acoustical insulation product of claim 1, wherein said rotary
33 fibers have an average diameter of about 3 to 5 micrometers.

34
35 10. The thermal and acoustical insulation product of claim 1, wherein said rotary
36 fibers have an average diameter of about 4 to 5 micrometers.

37
38 11. The thermal and acoustical insulation product of claim 1, wherein said rotary
39 fibers have an average fiber length of less than about 100 mm.

40
41 12. The thermal and acoustical insulation product of claim 1, wherein said rotary
42 fibers have an average fiber length of less than about 75 mm.

43
44 Claims 13 and 14 were canceled.

45
46 15. The thermal and acoustical insulation product of claim 1, wherein said textile
47 glass fibers have an average diameter of about 6 to 20 micrometers.

48
49 16. The thermal and acoustical insulation product of claim 1, wherein said textile
50 glass fibers have an average fiber length of about 13 to 130 mm.

51
52 17. The thermal and acoustical insulation product of claim 1, wherein said insulation
53 product has a gram weight in the range of about 530 to 3750 gm/m².

54
55 18. The thermal and acoustical insulation product of claim 1, wherein said insulation
56 product has a gram weight in the range of about 700 to 3300 gm/m².

57
58 19. The thermal and acoustical insulation product of claim 1, wherein said insulation
59 product has a density in the range of about 16 to 56 kg/m³.

61 20. The thermal and acoustical insulation product of claim 1, wherein said insulation
62 product has a density in the range of about 24 to 48 kg/m³.

63
64 21. The thermal and acoustical insulation product of claim 1, wherein said insulation
65 product has a thickness of about 10 to 200 mm.

66
67 22. The thermal and acoustical insulation product of claim 1, wherein said insulation
68 product has a thickness of about 10 to 50 mm.

69
70 23. The thermal and acoustical insulation product of claim 1, wherein said binder is a
71 thermosetting resin powdered binder at about 5 to 35 wt. % of said insulation product.

72
73 24. The thermal and acoustical insulation product of claim 1, wherein said binder is a
74 thermosetting resin powdered binder at about 10 to 20 wt. % of said insulation product.

75
76 25. The thermal and acoustical insulation product of claim 1, wherein said binder is a
77 thermoplastic powdered binder at about 5 to 35 wt. % of said insulation product.

78
79 26. The thermal and acoustical insulation product of claim 1, wherein said binder is a
80 thermoplastic powdered binder at about 10 to 20 wt. % of said insulation product.

81
82 27. A thermal and acoustical insulation product comprising:
83 a fibrous insulation mat having a first side and a second side, said mat comprising:
84 rotary glass fibers;
85 thermoplastic fibers;
86 textile glass fibers;
87 at least one binder, wherein the fibers and the at least one binder are blended
88 together, the at least one binder bonding the fibers together to form the fibrous insulation mat,
89 the total glass fiber content is about 30-50 wt. % of said insulation product and said textile glass
90 fibers make up less than about 20 wt. % of the total glass fiber content of said insulation product;
91 and

92 a non-woven facing layer bonded to at least one of said two sides of the fibrous
93 insulation mat.

94
95 28. The thermal and acoustical insulation product of claim 27, wherein said rotary
96 glass fibers comprise scrap fibers.

97
98 29. The thermal and acoustical insulation product of claim 27, wherein said
99 thermoplastic fibers comprise scrap nylon fibers.

100
101 30. The thermal and acoustical insulation product of claim 27, wherein said textile
102 glass fibers comprise scrap fibers.

103
104 31. The thermal and acoustical insulation product of claim 27, wherein said
105 thermoplastic fibers are about 6 to 130 mm in length.

106
107 32. The thermal and acoustical insulation product of claim 27, wherein said
108 thermoplastic fibers are about 13 to 102 mm in length.

109
110 33. The thermal and acoustical insulation product of claim 27, wherein said
111 thermoplastic fibers have an average diameter of about 20 to 50 micrometers.

112
113 34. The thermal and acoustical insulation product of claim 27, wherein said
114 thermoplastic fibers make up about 30 to 50 wt. % of said insulation batt.

115
116 35. The thermal and acoustical insulation product of claim 27, wherein said rotary
117 fibers have an average diameter of about 3 to 5 micrometers.

118
119 36. The thermal and acoustical insulation product of claim 27, wherein said rotary
120 fibers have an average diameter of about 4 to 5 micrometers.

122 37. The thermal and acoustical insulation product of claim 27, wherein said rotary
123 fibers have an average fiber length of less than about 100 mm.

124
125 38. The thermal and acoustical insulation product of claim 27, wherein said rotary
126 fibers have an average fiber length of less than about 75 mm.

127
128 Claims 39 and 40 were canceled.

129
130 41. The thermal and acoustical insulation product of claim 27, wherein said textile
131 glass fibers have an average diameter of about 6 to 20 micrometers.

132
133 42. The thermal and acoustical insulation product of claim 27, wherein said textile
134 glass fibers have an average fiber length of about 13 to 130 mm.

135
136 Claims 43 – 47 were canceled.

137
138 48. A thermal and acoustical insulation product comprising:
139 a blended mixture of rotary and textile glass fibers, thermoplastic fibers and resinous
140 binder, said rotary and textile glass fibers being bonded together by the combined adhesion
141 caused by heating said blended mixture whereby said thermoplastic fibers and said resinous
142 binder are disposed at least partially in molten state and thereafter cooling said heated blended
143 mixture to ambient temperature to form said insulation product, wherein the total glass fiber
144 content is about 30-50 wt. % of said insulation product and said textile glass fibers make up less
145 than about 20 wt. % of the total glass fiber content of said insulation product.

146
147 49. The insulation product of claim 48, wherein said thermoplastic fibers comprise
148 nylon.

149
150 50. The insulation product of claim 48, wherein said resinous binder is a powdered or
151 liquid, thermosetting or thermoplastic binder.

153 51. The insulation product of claim 48, wherein said rotary glass fibers comprise
154 scrap fibers.

155
156 52. The insulation product of claim 48, wherein said thermoplastic fibers comprise
157 scrap nylon fibers.

158
159 53. The insulation product of claim 48, wherein said textile glass fibers comprise
160 scrap fibers.

Evidence Appendix

NONE

Related Proceedings Appendix

NONE